The Changing Global Economy: The Implications and Opportunities for Transportation in Atlantic Canada

Executive Summary

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The purpose of this report is to provide an overview of the current transportation system in Atlantic Canada, to identify the key transportation issues in the region, and to highlight how the region's trade and transportation flows are being affected by the changing global economy.

In this context, a specific focus of the report is the consideration of an Atlantic marine gateway for freight shipments. The report outlines the key drivers in global trade and shipping that are creating this opportunity, the specific nature of the opportunity for an Atlantic gateway, the economic benefits associated with a marine gateway, and the issues that must be addressed to successfully realize this potential.

Atlantic Canada's transportation system consists of a complex array of infrastructure, services and flows. Among the key elements are:

- The Port of Halifax which acts as a **marine gateway** for container traffic with more than 80% of volumes destined for or originating from central Canada and the U.S. Midwest.

- A **rail corridor**, operated by CN, that links the region and the Port of Halifax to markets in central Canada and U.S. Midwest.

- Two **truck corridors**, one between Atlantic Canada and the U.S. Northeast and one linking the Atlantic region with central Canada. Given the unbalanced nature of the flows along these trade corridors, Atlantic trucking companies have developed triangular network strategies, taking loads south to the United States, picking up goods from the U.S. Northeast region and transporting them to Toronto or Montreal, and then bringing goods back from central Canada to the Atlantic region.

- Dedicated port infrastructure, including two transhipment terminals, and international and domestic marine services for crude oil and refined energy products which account for about 80% of the marine tonnage moved to, from, and within the Atlantic region.

- Other ports and marine services for the export of Atlantic Canadian goods to the United States and for trade with other international markets.

This transportation infrastructure has facilitated a significant expansion in Atlantic Canada's international trade, particularly with the United States, during the 1990s. It has also supported the huge growth in the volume of shipments of energy products since the late 1990s. Buoyed by high energy prices, Atlantic Canada's international exports of energy products exceeded its exports of other goods for the first time in 2005.

Yet the global economy is changing with rapid growth in international trade and changing patterns of trade, driven in large part by the development of **global supply chains** that have been facilitated by lower transportation and communication costs, technological advances and market and trade liberalization.

In Atlantic Canada:

- There has been rapid growth in **exports of raw materials and unprocessed goods** such as iron ore, shellfish, pulp and newsprint **to fast-growing Asian markets** but, so far, relatively little in terms of value-added manufacturing. Will Atlantic exporters pursue further opportunities in these markets, requiring better marine access to Asia? Current exploration activity in the region suggests some upside potential for the export of minerals. However, the capacity for further increases in the supply of shellfish, pulp and paper may be limited. Other Atlantic manufacturers will find it hard to compete on the basis of low wages or just-in-time delivery to these markets and will more likely have to define their competitive advantage around other factors such as using technology to produce superior products and by providing better service quality.

- Factors such as increased competition from low cost competitors in Asia and elsewhere, a 40% appreciation of the Canadian dollar driven in part by high global energy prices, higher energy and transportation costs, weak or shifting product demand, and supply constraints in some industries point to the **competitiveness challenges** now facing Atlantic industry. These pressures are being reflected in current output, export and employment trends. For example, the total value of Atlantic Canada's non-energy exports has stagnated since 2000. In particular, food and forest products, which account for a large part of Atlantic rail and truck volumes and the growth in these modes over the last 10-15 years, have been facing particular difficulties with significant reductions in productive capacity. How will these trends affect the Atlantic Canada's demand for transportation services by mode and destination over the next decade? Decreased demand could have significant implications for the cost and availability of transportation services while lower rail volumes to central Canada and the U.S. Midwest could free up some capacity for imported containers from Asia.

- In the face of increased competitive pressures, Atlantic businesses have adopted practices such as supply chain management, offshoring and outsourcing to improve their productivity or to take advantage of new market opportunities. Going forward, this will require better marine and other transportation services to bring supplies to the region and to ensure rapid delivery of products to key markets.

While Asia has been one of the fastest growing markets for Atlantic exports over the last decade, a significant new opportunity to provide transportation services is opening up to service the import of goods from Asia to larger inland markets in Central Canada and the U.S. Midwest.

Several trends in global trade and shipping can be observed which point to the **potential for East Coast ports in North America** to play an increased role in terms of providing international transportation services for services via the Suez Canal. These include:

- Rapid growth in Asia-North America trade driven by imports of manufactured consumer goods from low-wage Asian countries, particularly China;

- Potential shifts within Asia in terms of the location of manufacturing activity, which may favour increased shipments from countries such as Malaysia, Vietnam and Thailand;

- The deployment of larger (post-Panamax) container ships;

- Congestion at West Coast ports in North America, prompting shippers to diversify the gateways they use; and

- Congestion and ship size constraints at the Panama Canal which offer a window of opportunity to East Coast ports to capture overflow from West Coast facilities via the Suez Canal.

However, several developments could affect the scope or timing of this opportunity. These include:

- The proposed expansion of the Panama Canal which could be completed by about 2014;
- Investments at West Coast ports in Canada (such as Prince Rupert) and the United States;
- Expansions at Gulf ports (e.g., Houston) and Mexican ports (e.g., Lázaro Cárdenas); and
- For Canadian East Coast ports, expansions at U.S. East Coast ports (e.g., Norfolk) as well as investments in inland terminal facilities at existing U.S. East Coast ports.

In Eastern Canada, the **Port of Halifax** is best positioned at the current time to take advantage of these potential opportunities:

- It is by far the largest container port in Atlantic Canada and the 3rd largest in Canada;
- It already has a broad variety of services (both international and short sea shipping);
- It has a deep ice-free harbour;
- It has doublestack Class 1 rail service to Central Canada and U.S. Midwest; and
- It currently has spare capacity.

While there may also be opportunities for other East Coast Canadian ports, a number of challenges exist:

- The Port of **Saint John** requires increased shipping times compared with Halifax and it is constrained by tides in the Bay of Fundy;
- The Port of **St. John's** is limited by its lack of access to the major inland markets;
- The Port of **Canso** currently lacks a container terminal and Class 1 rail service;
- The Port of **Montreal** is constrained in its ability to handle larger, Post-Panamax vessels because of the depth of the St. Lawrence Seaway and the need for an ice-breaker and ice-strengthened vessels during winter.

The most obvious opportunity for the Port of Halifax is to expand its role as a **gateway for containerized Asian imports** destined for central Canada and the U.S. Midwest:

- Unlike New York, the Atlantic region is not a sufficiently large market in itself to influence port of call choices.
- Halifax is the closest major East Coast port to Europe and the Suez Canal and has an advantage in terms of serving markets in Central Canada and the U.S. Midwest, compared with U.S. ports such as Norfolk and Savannah (in terms of transit time), and

possibly New York (for Ontario shippers who dislike the potential issues arising from the use of a U.S. gateway).

- Some shipping lines indicate that larger vessels will need to make two or three port calls on the East Coast (including New York/New Jersey, which, because of its large local market, cannot be efficiently serviced any other way). Under this approach, Halifax could be one of several East Coast ports of call with ships dropping off loads for central Canada/U.S. Midwest (and picking up loads from the same) on their way to or from other East Coast ports further south. This 'topping off' would represent an expansion of existing kinds of activity at the Port of Halifax. It also suggests some degree of complementarity between Halifax and other East Coast ports such that increased investment and capacity at other East Coast ports makes such routings more likely and hence increases the likelihood for spillovers to Halifax.

- Moreover, it is possible that a shipping line may choose to make Halifax its major East Coast port of call, with significant unloading of containers for inland markets (e.g., perhaps 6,000 TEUs rather than about 1,000 TEUs under traditional topping off activity). This approach could very quickly tap the existing capacity of the Port.

- Further analysis of the size and timing of this potential demand is required.

There may be other opportunities for the Port of Halifax to expand:

- If eastern European countries become important manufacturing centres for the North American market then gateway trade between **Europe and North America** may flourish. Although not forecast to grow as fast as Asia-North America trade, volumes on these routes are still significant. A shift towards bigger ships on this route would limit the capacity of Montreal to service these ships and provide a greater potential role for Halifax.

- It may be possible for the Port of Halifax to develop as a major **transhipment** container terminal if gateway activity at the Port begins to grow rapidly. This opportunity needs further evaluation. The potential for short sea shipping, which would a key component of a transhipment terminal in the region, is currently restricted by government regulations. In addition, despite the development of transhipment terminals elsewhere around the globe, no such terminal has so far been developed on the east, west or gulf coast of North America.

While the development of Atlantic gateway depends upon several key global developments that are largely outside of its control, there are several key factors that can be influenced by regional stakeholders that could affect the likelihood of increased gateway activity:

- **Ensuring strong connections to inland markets.** The cost and ease of transporting containers from the Port of Halifax to inland markets in central Canada and the U.S. Midwest is central to the port's competitiveness but depends almost exclusively on rail services provide by CN. CN's reputation as a railroad operator is an asset for an Atlantic gateway but are CN's operating objectives of asset utilization and cost control optimal for the development of gateway traffic? CN's operating efficiency should be a plus and CN's President and CEO recently stated, in the keynote luncheon address for Halifax Port Days, that the interests of the Port of Halifax and CN have "never been more strategically aligned" and that CN is "prepared and totally committed to making growth at Halifax a reality."

- Road infrastructure will also be important for Atlantic exporters to take advantage of improved access to international markets via the Port of Halifax and for increased distribution of imports throughout the region. In addition, ensuring the adequacy of road infrastructure to Central Canada will be an important complement to rail for time sensitive shipments. To the extent that containerized imports through the Port of Halifax are destined for New England, the efficiency and capacity of road and border infrastructure to the United States will also be important.

- **Boosting Port Efficiency.** The Port of Halifax's efficiency is imperative. Higher efficiency can improve cost structures and make the port more attractive to shipping lines. Enhanced efficiency also improves transit times and reliability for shippers. The Halifax Port Authority, the terminal operators, CN and the stevedores all have a role in maximizing the port's productivity.

- **Ensuring sufficient port capacity.** The Port of Halifax is currently operating at about half of its capacity, but the long-term viability of the port as a gateway depends upon its capacity to expand. While one recent study indicated that the Port's effective capacity is about 750,000 TEUs per year, the Halifax Port Authority believes that its two container terminals can handle about 1 million TEUs per year. Port capacity is fragile and can change quickly if shipping lines alter their ports of call or new services are added. However, if a port cannot accommodate such shifts, they will miss out on the opportunity. There is therefore a need to build capacity ahead of demand. This makes port and terminal investments inherently risky with a lack of security for private lenders. It is the practice of the governments of most countries to provide financial support for the development of port infrastructure. Many governments view common user port infrastructure as a public good and so subsidize it. Canada is one of very few countries that expects common user ports to be financially self-sufficient. Options for expansion at the Port of Halifax include the expansion of the two existing container terminals by using adjoining land, shifting operations to an all rail inland terminal, and a third container terminal.

- **Turning potential into reality.** Despite the trends favouring the growth of East Coast ports and Halifax's favourable location and capabilities, shippers and shipping lines still need to be convinced to add Halifax to their ports of call or to make a major shift in favour of Halifax. The Port of Halifax believes that it is ready for this opportunity and is aggressively trying to make itself known and to market its capabilities.

- **Removing regulatory barriers.** A number of regulatory issues need to be addressed if the full potential of an Atlantic gateway is to be realized. A relaxation of CMA port financing restrictions is an important step to support infrastructure development and was strongly recommended by the CMA Review Panel. Even so, direct government funding for port infrastructure will still be needed. Regulations affecting the viability of short sea shipping will need to be addressed if the port is to become more of a transhipment hub.

- **Working together.** Many stakeholders have an interest in the development of an Atlantic gateway but its success will depend upon their ability to work together with a clear vision, commitment and coordinated action.

What would be the economic benefits of increased gateway activity through the Port of Halifax? While the main potential benefits can be identified, further analysis is required to quantify their dollar value and significance.

- The Port of Halifax would benefit from **higher revenues and incomes** for the Halifax Port Authority, the terminal operators and the stevedores. These higher incomes would generate increased personal income tax, sales tax, corporation tax and other revenues for municipal, provincial and federal governments.

- Increased port activity will create demand and increased **opportunities for trucking and tertiary transportation services,** including distribution and logistics such as the facility being established by Consolidated FastFrate in Halifax.

- An enhanced Atlantic gateway would **improve access to markets**, particularly in Europe and Asia, for both Atlantic exporters and importers. Atlantic businesses would benefit from a larger number of shipping lines calling the Port of Halifax, more frequent services and increased container capacity. However, the magnitude of this potential benefit depends upon the competitiveness of Atlantic exporters and their interest in taking advantage of new and fast growing markets, such as those in Asia.

- If the Port of Halifax increases its container handling from Europe and Asia, there may be potential **spillover effects** to other Atlantic ports to provide complementary services. However, the scope for this potential is not yet clear. It is also not clear if there is potential for Atlantic companies to add value by capturing additional supply chain activity in the region.

- Canada's economy would benefit from increased economic activity through the Port of Halifax, including increased federal tax revenues. From a strategic point of view, an enhanced and more efficient Atlantic gateway would **complement both the Pacific gateway** (through the Port of Vancouver and Prince Rupert) **and the Port of Montreal** (especially as container ships increase in size), ensuring that all Canadian businesses have more competitive marine transportation options. It would also support the federal government's stated objective of developing Canada's trade with Asia.

- Enhanced marine services from Asia through the Port of Halifax would provide Canadian importers with **additional transportation options** to West Coast ports, which would assist them in managing risk in their supply chain, particularly as services through the Suez Canal develop. Moreover, as Canadian imports from Southeast Asian countries such as India, Thailand and Malaysia grow, Halifax is better suited than Vancouver to be the main gateway to central Canadian markets. Similarly, exporters, particularly those from Ontario and Quebec, would benefit from improved marine access to markets in Asia and eastern/Mediterranean Europe

While the development of an Atlantic gateway presents a real opportunity, particularly for the Port of Halifax, other Atlantic transportation priorities, that are not necessarily critical to the gateway concept, should not be neglected. The state of Atlantic Canada's current transportation system affects companies' competitive position. In a recent APEC survey of foreign firms in Atlantic Canada, the region's transportation system, particularly road and air, was rated as worse than in other jurisdictions where these firms operate.

- It is vital to ensure that Atlantic exporters can move goods quickly and easily across the **U.S. border**. The United States accounts for about 80% of the region's merchandise exports by value and 66% of its non-energy exports. In 2002, about 40% of the Maritime provinces international merchandise exports by value were shipped by road. Key issues that need to be addressed include ensuring adequate infrastructure and resources at border crossings to eliminate congestion; minimizing the negative impact of advance notification procedures; addressing ways to help SMEs comply with new security standards; and liaising with U.S. authorities on the development and implementation of border security measures.

- Adequate **funding mechanisms** are vital to maintaining and upgrading key road corridors within the region. Trucking accounts for the majority of flows to the U.S. Northeast as well as the majority of non-energy freight movements within the Atlantic region. The Atlantic region has one of the highest road densities in the country in terms of kilometres of roads per person but lacks the tax base to support it. Despite significant improvements to the region's road network in recent years, the ability of the provinces to participate in federal cost-shared programs remains a concern.

- **Regulatory convergence** should be another top priority, in particular, working with U.S. counterparts to harmonize regulations within NAFTA. Differing equipment standards and other regulations (including cabotage) reduce the efficiency of cross-border truck movements. Other regulatory barriers include those affecting short sea shipping.

- Finally, consideration should be given as to how to assist **small Atlantic shippers** that lack the volumes to ensure capacity on ships, planes, railcars and trucks and the bargaining power to influence rates and service levels. Is there scope for a shippers' cooperative or similar venture to improve transportation access for smaller players?

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